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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,573	10/16/2006	Yasushi Sato	0670-7063	1510

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EXAMINER	
OPSASNICK, MICHAEL N	
ART UNIT	PAPER NUMBER
2626	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/559,573	SATO, YASUSHI	
	Examiner	Art Unit	
	MICHAEL N. OPSASNICK	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/5/2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Farrett (5636325).

As per claim 1, Farrett (5636325) teaches a voice data selector (Fig. 4b), comprising: memory means for storing a plurality of voice data expressing voice waveforms (as memory – Fig. 2); search means for inputting text information expressing a text and retrieving data expressing a waveform of a voice unit whose reading is common to that of a voice unit which constitutes the text from among the voice data (as text input, Fig. 3, subblock 50); and selection

means for selecting each one of voice data corresponding to each voice unit (as selecting a voice of different dialects – fig. 4b, fig. 6a), which constitutes the text from among the searched voice data so that a value obtained by totaling difference of pitches in boundaries of adjacent voice units in the whole text may become minimum (as calculating pitch values, and searching for matching frequencies –col. 11 line 7 – col. 12 line 20; col. 16 lines 35-45).

As per claim 2, Farrett (5636325) teaches the voice data selector according to claim 1, further comprising: speech synthesis means of generating data expressing synthetic speech by combining selected voice data mutually (as speech output, fig. 3, subblocks 72-78; with a combination of voice information – fig. 4b)..

Claims 3,4 are method and program claims that are performed by the apparatus claims 1,2 above and as such, are similar in scope and content to claims 1,2 above; therefore, claims 1,2, are rejected under similar rationale as presented against claims 1,2 above.

As per claim 5, Farrett (5636325) teaches a voice selector, comprising: memory means for storing a plurality of voice data expressing voice waveforms (as memory – Fig. 2); prediction means for predicting time series change of pitch of a voice unit(as analyzing pitch f0, fig. 4a; and extracting prosody), by inputting text information expressing a text and performing cadence prediction for a voice unit which constitutes the text concerned (as extracting pitch, prosody, and phoneme data from the input text – fig. 4a; fig. 8 showing selection of curve to match phoneme data); and selecting means for selecting from among the voice data the voice data which

expresses a waveform of a voice unit whose reading is common to that of a voice unit which constitutes the text (as searching and matching for dialect intervals that match the text information – col. 6 lines 50-65; fig. 4b), and whose time series change of pitch has the highest correlation with prediction results by the prediction means (as matching the fundamental frequency, i.e. pitch, col. 7 lines 1-14).

As per claims 6,7, Farrett (5636325) teaches the voice selector according to claim 5, wherein the selection means may specify strength of correlation between time series change of pitch of voice data (as determining the best curve for the matching frequency – col. 19 line 9 to col. 20 line 20), and results of prediction by the prediction means on the basis of results of regression calculation which performs primary regression between time series change of pitch of a voice unit which voice data expresses, and time series change of pitch of a voice unit in the text whose reading is common to the voice unit concerned (as calculating a differential (col. 17 lines 35-65, col. 15 line 45 – col. 16 line 35).

Claims 8-11 are similar in scope and content to claims 5-7 and as such, are rejected under similar rationale as presented against claims 5-7 above.

As per claim 12, Farrett (5636325) teaches the voice selector according to claim 8, wherein the numerical value expressing correlation comprises the maximum value of correlation coefficients between a function which what is given various bit count cyclic shifts to data expressing time series change of pitch of a voice unit which voice data expresses, and a function

expressing prediction results of time series change of pitch of a voice unit in the text whose reading is common to that of the voice unit concerned (as performing a rotational frequency array analysis for the pitch spectrums – col. 15 lines 40-65).

As per claim 13, Farrett (5636325) teaches the voice selector according to any one of claims 5 to 12, wherein the memory means stores phonetic data expressing reading of voice data with associating it with the voice data concerned; and wherein the selection means treats voice data, with which phonetic data expressing the reading agreeing with the reading of a voice unit in the text is associated, as voice data expressing a waveform of a voice unit whose reading is common to the voice unit concerned (as memory, Fig. 2, reading in phoneme data, prosody data, from both text and speech, and matching with the dialect/semantics – fig. 3).

As per claim 14, Farrett (5636325) teaches the voice selector according to any one of claims 5 to 12, further comprising: speech synthesis means of generating data expressing synthetic speech by combining selected voice data mutually (as output speech with smoothened dialects – fig. 3, subblock 72-78).

As per claim 15, Farrett (5636325) teaches the voice selector according to claim 14, comprising: lacked portion synthesis means of synthesizing voice data expressing a waveform of a voice unit in regard to the voice unit, on which the selection means was not able to select voice data, among voice units in the text without using voice data which the memory means stores, and in that the speech synthesis means generates data expressing synthetic speech by combining

voice data, which the selection means selected, with voice data which the lacked portion synthesis means synthesizes (as performing a transition smoother which overcomes gaps/transitions between known matches – fig. 3, subblocks 68-78).

Claims 16-19 are method/program claims that are performed by the apparatus claims 1,2,5-15 and as such are similar in scope and content to claims 1,2,5-15; therefore, claims 16-19 are rejected under similar rationale as presented against claims 1,2,5-15 above.

Claims 20-30 are voice selector claims that are similar in scope and content to the voice selector combination claims 1,2,5-15 above; as such, claims 20-30 are rejected under similar rationale as presented against claims 1,2,5-15 above. Claims 31,32 are method/program claims that are similar in scope and content to the voice selector claims 20-30; therefore, claims 31,32 are rejected under similar rationale as presented against claims 20-30 above.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see related art listed on the PTO-892 form.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (571)272-7623, who is available Monday-Friday, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Richemond Dorvil, can be reached at (571)272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael N. Opsasnick/
Primary Examiner, Art Unit 2626
3/23/2010